REMARKS

Claims 1, 42, 43, and 45 are pending in the present application. Claim 44 has been cancelled. Claim 45 has been amended to correct pendency. The specification has been amended to correct the reference to trademarked compositions. No new matter has been added.

Claim Numbering

Applicants acknowledge the Examiner's renumbering of the claims. The listing of the claims above reflects this renumbering.

Sequence Compliance

Examiner has asserted that Applicants have failed to provide a statement that the content of the substitute paper and computer readable copies of the "Sequence Listing" are the same and include no new matter. Applicants submitted such a statement with the above mentioned sequence listing on April 4, 2003. Copies of the statement and the postcard received back from the Patent Office stating that the statement was filed with the Sequence Listing are included with this response for the Examiner's convenience.

Specification

The Examiner has objected to the specification because it contains trademarks which are not correctly presented. The Examiner stated what the correct presentation of a trademark is on page 3, paragraph 7 of the Office Action. "It should be capitalized wherever it appears and be accompanied by the generic terminology." Applicants have amended the specification to correct the presentation of the trademarks for TRITON X-100®, TRITON X-114® and THESIT®, to capitalize each letter. These amendments satisfy the criteria stated by the Examiner in the Office Action. Therefore, Applicants submit that this objection is overcome.

Rejection under 35 U.S.C. § 101

Claims 1, 42-45 have been rejected under 35 U.S.C. § 101 for lack of utility. The Examiner has stated that Applicants previously submitted arguments were not deemed persuasive. The Examiner alleges that the Applicants' data submitted in previously filed Exhibit A was not disclosed in the instant specification as the time the application was filed, and as such, cannot be used to support an assertion of utility. The Office Action reads on the bottom of page 4, "35 USC § 101 clearly states that the invention must be useful in currently available form,

which precludes any further experimentation to establish the utility of the claimed invention." Applicants traverse.

Applicants respectfully disagree with the Examiner that 35 U.S.C. § 101 clearly precludes further experimentation to establish utility. 35 U.S.C. § 101 reads:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Applicants do not find any clear preclusion in the statutory language of 35 U.S.C. § 101 from submitting after filing evidence to establish utility. Applicants are permitted to submit after filing evidence showing utility as long as there is an appropriate nexus to the subject matter of the specification. MPEP 2107 states:

> (3) If the applicant has not asserted any specific and substantial utility...[t]he 35 U.S.C. 101 and 112 rejections shift the burden of coming forward with evidence to the applicant to:
>
> (i) Explicitly identify a specific and substantial utility for the claimed invention; and
>
> (ii) Provide *evidence* that one of ordinary skill in the art would have recognized that the identified specific and substantial utility was well-established at the time of filing. The *examiner should review any subsequently submitted evidence of utility using the criteria outlined above.* The examiner should also ensure that there is an adequate nexus between the evidence and the properties of the now claimed subject matter as disclosed in the application as filed. That is, the applicant has the burden to establish a probative relation between the submitted evidence and the originally disclosed properties of the claimed invention. (Emphasis added).

Exhibit A has a nexus with the subject matter of the specification. The present application describes usefulness of SEQ ID NO:6 regarding Alzheimer's Disease (*See* instant specification at page 22, lines 13-16). The present application describes the detection of differentially expressed mRNA's by RT-PCR (*See* the instant specification at page 82, lines 25-29). The present application also shows that SEQ ID NO:6 is aberrantly expressed in Alzheimer's disease, so SEQ ID NO:6 could be used to treat or prevent Alzheimer's disease. (*See* page 83, lines 20-28). The present application also describes the use of nucleic acids and proteins of the invention for diagnostic purposes for determining levels of nucleic acids and proteins of the invention in the context of a biological sample. (*See* page 87, lines 16-22 of the

specification). Exhibit A provides additional support of this differential expression. Therefore, Applicants assert that the data in Exhibit A has a probative relationship with the as filed specification, and, the data in Exhibit A can (and should) be used to provide evidence that a specific and substantial asserted utility or a well established utility of the claimed protein existed at the time of filing. The utility of SEQ ID NO:6, demonstrated by the specification as filed and Exhibit A shows that SEQ ID NO:6 is useful in differentiating between pathological and normal brain tissues and cells in Alzheimer's patients.

The Examiner stated in the Office Action, on page 4 first full paragraph, that Table AC of Exhibit A shows that SEQ ID NO:6 is upregulated in Alzheimer's patients instead of downregulated, as stated by Applicants in their previous response. Applicants respectfully disagree. The results analyzed by Acnova (*See* page 6, first paragraph of Exhibit A) included the data marked "AD 1-4 Temporal Ctx" and not the inferior and superior temporal cortex data. This data was not included in this analysis because there was no appropriate controls for the inferior and superior temporal cortex data (*i.e.* inferior and superior temporal cortex data from normal patients). The average value of "AD 1-4 Temporal Ctx" sample scores is 24.6. The corresponding controls to these samples are marked "Control 1-4 Temporal Ctx" in Table AC. "Control (Path) 1-4 Temporal Ctx" samples are from patients that had severe Alzheimer's pathology but did not have dementia. (*See* page 3, third full paragraph of Exhibit A). These samples are appropriate controls for the "AD 1-4 Temporal Ctx" samples because they are not from non-Alzheimer's patients, they are from asymptomatic Alzheimer's patients. The average of the results for the "Control 1-4 Temporal Ctx" samples is 33.7. This is a statistically significant decrease in SEQ ID NO:6 expression in the temporal cortex of patients' brains.

Applicants submit that at least one substantial and specific utility exists for the claimed invention and is readily apparent based on the teachings of the specification and is further demonstrated by Exhibit A submitted in the prior response to Office Action. SEQ ID NO:6 can be used to detect Alzheimer's in brain samples from patients. Therefore, this rejection should be withdrawn.

Rejection under 35 U.S.C. § 112

Claims 1, and 42-45 have been rejected under 35 U.S.C. § 112, first paragraph, for not providing a readily apparent use for the polypeptide of SEQ ID NO:6. Arguments made above in reference to the rejection under 35 U.S.C. § 101 apply to this 35 U.S.C. § 112 rejection as well. If the above rejection is withdrawn, this rejection will also be withdrawn.

Claims 44 and 45 have also been rejected under 35 U.S.C. § 112, first paragraph, for not being enabled and for lacking written description for polypeptides that are 99% identical to SEQ ID NO:6. To facilitate prosecution, Applicants have cancelled claim 44, which contained the 99% language. The claims no longer describe polypeptides 99% identical to SEQ ID NO:6. Therefore, Applicants request that this rejection be withdrawn.

CONCLUSION

On the basis of the foregoing remarks, Applicants respectfully submit that the pending claims are in condition for allowance. If there are any questions regarding these amendments and remarks, the Examiner is encouraged to contact the undersigned at the telephone number provided below.

Respectfully submitted,

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December 9, 2003

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Attorney Docket No. 15966-615 (Cura-115)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS :	Prayaga *et al.*		
SERIAL NUMBER :	09/732,436	EXAMINER :	Olga N. Chernyshev
FILING DATE :	December 7, 2000	ART UNIT :	1646
FOR :	NOVEL POLYPEPTIDES AND NULCEOTIDES ENCODING SAME		

Commissioner for Patents
Washington, D.C. 20231

COPY

STATEMENT IN SUPPORT OF COMPUTER READABLE FORM SUBMISSION UNDER 37 C.F.R. § 1.821(f)

I hereby state that the content of the paper and computer readable forms of the Sequence Listing, submitted in the above-identified application in accordance with 37 C.F.R. § 1.821(c) and 1.821(e), respectively, are the same. No new matter is added.

Respectfully submitted,

April 4, 2003

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TRA 1782386v1

COPY

Serial No. 09/732436 File No. 15966-615 By: IRE/CVK/SMC

Title: Novel Polypeptides and Nucleotides Encoding Same

Application of Prayaga et al. Date: 12/7/00

The U.S. PTO Mail Room acknowledges receipt of the following on the date stamped hereon:

[ ] Req. for CPA under 37 CFR 1.53(d)
[ ] Change of Attorney's Address
[ ] New Power of Attorney
[ ] Patent Application
  [ ] Non-provisional [ ] Provisional
  Incl. ____ pages, (pgs) Specification,
  (pgs) Abstract, (pgs) Claims, (claims)
[ ] Design Patent Application
[ ] Declaration(s) _____
[ ] Drawings ____ sheet(s) (FIGS. _____ - _____)
  [ ] Formal [ ] Informal
[ ] Verified Statement claiming small entity status
[ ] Assignment and Cover Sheet

[ ] Provisional Application Cover Sheet
[ ] Inf. Discl. Statement, PTO Form 1449
[ ] References Cited
[ ] [illegible]
[X] [illegible] (6pgs)
[X] Petition for Ext. of Time (x2)
[ ] Issue Fee Transmittal
[ ] Letter to Official Draftsperson
[ ] Notice of Appeal
[ ] Brief (x3)
[ ] [illegible]
[ ] [illegible]
[ ] Dec. of Mailing Under 37 CFR 1.8(a)
[X] Express Mail Label No. EV139506802US

[X] Other Exhibit A (6pgs); Sequence Listing (25pgs); 1 disk; Statement in Support of CRF

DATE MAILED April 4,2003